

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 20 MAR 2006

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Applicant's or agent's file reference P4646.PC/PDW	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. PCT/GB2005/000630	International filing date (day/month/year) 21.02.2005	Priority date (day/month/year) 19.02.2004	
International Patent Classification (IPC) or national classification and IPC G06F17/30, H04L29/06, H04M1/725, G06F9/44			
Applicant QUALCOMM CAMBRIDGE LIMITED			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 5 sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand  16.12.2005		Date of completion of this report  16.03.2006	
Name and mailing address of the international preliminary examining authority:  European Patent Office - Gitschiner Str. 103 D-10958 Berlin Tel. +49 30 25901 - 0 Fax: +49 30 25901 - 840		Authorized Officer  Bowler, A  Telephone No. +49 30 25901-448	



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/GB2005/000630

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**Box No. I Basis of the report**

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1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements**\* of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

3-31 as originally filed  
1, 2 filed with telefax on 16.12.2005

**Claims, Numbers**

1-9 filed with telefax on 16.12.2005

**Drawings, Sheets**

1/6-6/6 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	4,8
	No: Claims	1-3,5-7,9
Inventive step (IS)	Yes: Claims	
	No: Claims	1-9
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

1. Reference is made to the following documents:

D1: US 2002/151327 A1 (LEVITT DAVID) 17 October 2002 (2002-10-17)

D2: US 2003/236917 A1 (GIBBS MATTHEW E ET AL) 25 December 2003 (2003-12-25)

D3: [Online] XP000238840 28 NOV 2003 Retrieved from the Internet:  
URL:HTTP:77WWW.MSMOBILES.COM> [retrieved on 2003-11-28]

2. **Novelty**

Independent claims 1-3, 5-7 and 9 do not meet the requirements of the PCT in the respect to novelty (Article 33(2) PCT), the reasons being as follows:

D1 discloses:

A **mobile (see abstract)** device (handheld device 22) comprising a storage means (fig.1, "with storage and clock"; par. 67) for storing a plurality of data resources (media directories; paragraph 22, lines 1-2) (also remote storage on network 26)

a file system (figure 6, paragraph 221) for organising the plurality of data resources stored in the storage means; (hierarchical database of entertainment devices and content that can be navigated with one hand from the handheld unit; par. 62)

and a user interface (interface software 52 taken together with handheld device 22 and liquid crystal display 38; par. 67-68) for providing user access to the plurality of data resources, (par. 24)

wherein the file system comprises one or more locations comprising directly addressable data resources (paragraph 11; entertainment device 24 of fig.1) and

one or more locations comprising indirectly addressable data resources (paragraph 11; network connection 26 of fig. 1),

the indirectly addressable data resources being accessible through a data provider, (another networked device; paragraph 227)

the file system being configured, in use, to provide a single interface from the user interface to both directly addressable data resources and indirectly addressable data resources. (paragraph 221-232, fig.6 local as well as remote data resources are accessible).

2.1 Thus claim 1 is not new. It is noted that the claims have been amended to include the word "mobile" before "device", but that this change has not overcome the objection under Article 33(2)PCT since the device of D1 is also clearly a mobile device.

In reply to applicant's argument that there is no storage device provided on the mobile device, the reference to the storage means has been changed to indicate that there is a storage means within the handheld device. Citations are provided. Data resources are interpreted as the program listing.

Applicant argues that a mobile PALM PDA is not the equivalent of a handheld mobile phone, but for purposes of claim interpretation this makes no difference. In fact handheld cellular telephones are disclosed in D1 as an alternative to the handheld personal organizer to which applicants refer. Abstract line 3, paragraph 17.

Applicant has failed to persuade the examining division that the device of D1 does not anticipate the claims since the file system of D1 (media directories) is interpreted as the list of resources that can be controlled and down loaded to the user device.

Applicant argues that the file system of his invention is used to arrange the data resources stored within the storage means of the mobile device and that this feature is lacking in D1. It is submitted that the hierarchical database of figure 6 comprises a file system and this file system is indeed used to arrange the data resources and provide for easy access. Applicant also finds the disclosure of the file system of D1 deficient. In effect the file system of figure 1 is a virtual file system, since it references files that are not entirely present of the physical device. (some of the files are remote and some of the files are local. In this respect D1 is very close to applicant's invention.

3. Claim 2 defines "directly addressable data resources" as data content files which when in use are displayed within the user interface. (data content files such as from entertainment devices 24 of fig 1. See pars. 69-73) (see also Scenarios TV connected par 314 etc.)

4. Claim 3 defines the "indirectly addressable data resources" as a database and the result of one or more queries is displayed in the handset. (downloads from network 26, see paragraph 25, 72 and 73).  
(par. 305-307; When sufficient bandwidth and infrastructure are available, users may access media that is not locally stored through an Internet connection, networked computer, set-top box, or other device. Similar interfaces for personalized directories, preferences, transactions, and media control can be applied to support such media as may

be streamed or cached in a PC, handheld device, or elsewhere in the server system.)

5. Claims 5-7 and 9 define corresponding method claims and are therefore deemed to be anticipated by the disclosure of D1 as well.

## **6. Inventive Step**

6.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 4 and 8 does not involve an inventive step in the sense of Article 33(3) PCT.

6.2 The document D1 is regarded as being the closest prior art to the subject-matter claim 1 as set forth above.

6.3 Claims 4 and 8 further define "indirectly addressable data resources" as markup language elements read as tags for downloading content from a network such as the Internet. Known tag types are chosen from SGML, XML, WAL, TRIGML, for example..

6.4 The subject-matter of claims 4 and 8 differs from the mobile device of claim 1 as there is no reference to mark-up language elements in D1.

6.5 The problem to be solved by the present invention may therefore be regarded as how to render content on the handheld device.

6.6 The solution proposed in claims 4 and 8 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons. Using markup language elements for formatting the content was well known in the Internet field at the time of the invention.

6.7 This feature is described in document D2 as well as D3, as providing the same advantages as in the present application.(D2 par. 5) (D3 entire press release). The skilled person would therefore regard it as a normal design option to include this feature in the device of applicant in order to solve the problem posed. As such there is no inventive step present in claims 4 and 8.

## **7. Article 6 PCT**

Although the breadth of claims 1 and 5 is considered to be unduly broad, the clarity objection is hereby withdrawn.

**INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(SEPARATE SHEET)**

International application No.

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## VIRTUAL FILE SYSTEM

## FIELD OF THE INVENTION.

- 5 The present invention relates to a virtual file system and in particular to a virtual file system for mobile devices for use with a mobile communications network.

## BACKGROUND OF THE INVENTION

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- One of the growth areas for mobile network operators and content providers is the provision of ringtones, wallpapers and other multimedia content for mobile telephones and devices. There is a tension between the needs of mobile network operators and device manufacturers to retain control over some aspects of the device user interfaces for branding purposes and the needs of users to customise and modify the appearance of their devices to suit their own needs. The sophisticated software required to provide the desired flexibility and customisation is also in tension with the limited processing power and data storage capacity of typical mobile devices. The present invention seeks to mitigate these problems.

## 25 SUMMARY OF THE INVENTION

- According to a first aspect of the present invention there is provided a mobile device comprising: a storage means for storing a plurality of data resources; a file system for organising the plurality of data resources stored in the mobile device storage means; and a user interface for providing user access to the plurality of data resources,

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wherein: i) the file system comprises one or more locations comprising directly addressable data resources and one or more locations comprising indirectly addressable data resources the indirectly addressable data resources being  
5 accessible through a data provider; and ii) the file system being configured, in use, to provide a single interface from the user interface to both directly addressable data resources and indirectly addressable data resources.

- 10 The directly addressable data resources may comprise data content files which, in use, are displayed within the user interface. The indirectly addressable data resources may comprise a database and, in use, the result of one or more queries is displayed within the user interface. Furthermore,  
15 the indirectly addressable data resources comprise a mark-up language element and, in use, the mark-up language element is rendered and the associated result is displayed within the user interface.
- 20 According to a second aspect of the present invention there is provided a method of storing a plurality of data resources within a file system of a mobile device, the method comprising the steps of: defining one or more locations comprising one directly addressable data resources; defining  
25 one or more locations comprising indirectly addressable data resources, the indirectly addressable data resources being accessible through a data provider; wherein file system provides a single interface from the user interface to access both the directly addressable data resources and indirectly  
30 addressable data resources access.

According to a third aspect of the present invention there is

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## CLAIMS

1. A mobile device comprising:

5 a storage means for storing a plurality of data resources;

a file system for organising the plurality of data resources stored in the mobile device storage means; and

10 a user interface for providing user access to the plurality of data resources, wherein:

15 i) the file system comprises one or more locations comprising directly addressable data resources and one or more locations comprising indirectly addressable data resources the indirectly addressable data resources being accessible through a data provider; and

20 ii) the file system being configured, in use, to provide a single interface from the user interface to both directly addressable data resources and indirectly addressable data resources.

2. A mobile device according to claim 1, wherein the directly addressable data resources comprise data content files which, in use, are displayed within the user interface.

25 3. A mobile device according to claim 1 or claim 2, wherein the indirectly addressable data resources comprise a database and, in use, the result of one or more queries is displayed within the user interface.

30 4. A mobile device according to claim 1 or claim 2, wherein the indirectly addressable data resources comprise a mark-up language element and, in use, the mark-up language element is

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rendered and the associated result is displayed within the user interface.

5. A method of storing a plurality of data resources within a file system of a mobile device, the method comprising the steps of:

defining one or more locations comprising one directly addressable data resources;

defining one or more locations comprising indirectly addressable data resources, the indirectly addressable data resources being accessible through a data provider;

wherein file system provides a single interface from the user interface to access both the directly addressable data resources and indirectly addressable data resources access.

6. A method according to claim 5, wherein the method comprises the further step of accessing a directly addressable data resource such that the content of the data resource is displayed within the user interface.

7. A method according to claim 5, wherein the method comprises the further step of accessing an indirectly addressable data resource, the data resource comprising a database such that the result(s) of a database query is displayed within the user interface.

8. A method according to claim 5, wherein the method comprises the further step of accessing an indirectly addressable data resource, the data resource comprising a mark-up language element such that the mark-up language element is rendered and the associated result is displayed within the user interface.

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9. A data carrier comprising computer executable code for performing the method of any of claims 5 to 8.

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